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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,467	12/22/2000	Paul F. Agris	5051-474IP	2331

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EXAMINER

CHEU, CHANGHWA J

ART UNIT PAPER NUMBER

1641

DATE MAILED: 09/09/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

09/747,467

Examin r

Jacob Cheu

Applicant(s)

AGRIS, PAUL F.

Art Unit

1641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 and 56-63 is/are pending in the application.
- 4a) Of the above claim(s) 19-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-18 and 56-63 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

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### **DETAILED ACTION**

Applicant's amendment filed on June 25, 2003 has been received, entered into record and considered. The following information provided in the amendment affects the instant application:

1. Claims 14-18 are amended.
2. Claims 56-63 are added to the instant application.
3. Claims 23-55 are cancelled without prejudiced.
4. Claims 19-22 are withdrawn.
5. Remarks on the Restriction Requirement and novelty and obvious rejections under 35 U.S.C. §102 and §103.

### ***Restriction Requirement***

Applicant's election of group I, claims 14-18, with traverse is considered and found persuasive. Therefore, group I, claims 1-13, is rejoined with group II, claims 14-18 for examination. Currently, claims 1-18, 56-63 are under examination.

### ***Inventorship***

Applicant's petition for removing inventors Christopher Pearce and Lloyd Mitchell filed on October 3, 2001 Paper No. 5 has been received and considered. However, applicant filed supplemental inventor declaration in the continuation application No. 10/190795 include both Christopher Pearce and Lloyd Mitchell. Both the continuation application (No. 10/190795) and the instant application have the identical claims *as filed*. (emphasis added) Furthermore, the inventors listed in the specification also include Christopher Pearce and Lloyd Mitchell. (See page 1 in the specification) It is not clear what is the exact inventorship in the instant application.

### ***Double Patenting***

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claims 1-18, 56-63 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1-18 of copending Application No. 10190795. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

### ***Claim Objections***

Claim 1 is objected to because of the following informalities: Claim 1, line 2, "having *a* organic protecting group" should be changed to "having an organic protecting group." Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2-6, and 56-60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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With respect to claims 2-6, 56-60, the recited chemical formula is vague and confusing. Conventionally, one skilled in the art referring "nucleotides" would use a "furanose" ring containing an "oxygen" whereas the current application using "cyclopentyl" without the oxygen. Structurally wise, the recited formula cannot be called nucleotides. Clarification is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 7-18, 56-57, 61-63 are rejected under 35 U.S.C. 102 (b) as anticipated by Lewis et al. (US 5464759)

Lewis et al. teach capping organic protecting groups on the oligonucleotides, i.e. 5'-hydroxyl groups, for purifying the oligonucleotide synthesis (e.g. 18 nucleotides) from immunoassay. (See abstract; Col. 8, line 15-25) Lewis et al. teach covalently bound the organic protecting groups on the failed oligonucleotides, i.e. incomplete deprotection, which can be recognized by both mono/polyclonal antibodies having specificities for covalently bound structures. (Col. 5, line 60-67; Col. 8, line 14-25; See Sections for Preparation of polyclonal and monoclonal antibodies) It is noted that the antibody used by Lewis et al., albeit antigenic to the organic capping agents, nevertheless it inherently recognizes the incomplete deprotecting nucleotides, i.e. organic capping-nucleotides. The organic protecting groups include various chemicals, i.e. carbamylating, aromatic isocyanates, dialkyl agents. (See Col. 4, Antigenic oligonucleotide capping agents) The antibodies specific for the capping nucleotides are immobilized on a solid support. (See Purification of capped oligonucleotides, Separation of

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oligonucleotides by immunoaffinity chromatography) Lewis et al. also teach incorporating photolabile protecting groups in the oligonucleotide synthesis. (See Photolytic system)

***Response to Applicant's argument***

7. Applicant's arguments with respect to claims 14-18 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

8. No claim is allowed.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob Cheu whose telephone number is 703-306-4086. The examiner can normally be reached on 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 703-305-3399. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3399.

Jacob Cheu  
Examiner  
Art Unit 1641



August 26, 2003.



LONG V. LE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600

09/08/03